

ANALYSIS

February 2020

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Coronavirus: The Global Economic Threat

Introduction

The coronavirus is a serious mounting threat to the fragile Chinese and global economies. It is hard to handicap how broadly the virus will ultimately spread and how virulent it will be, but it has already become highly disruptive to China and increasingly to the rest of Asia. The U.S. will not be immune to its ill effects.

Coronavirus: The Global Economic Threat

BY MARK ZANDI

The coronavirus is a serious mounting threat to the fragile Chinese and global economies. It is hard to handicap how broadly the virus will ultimately spread and how virulent it will be, but it has already become highly disruptive to China and increasingly to the rest of Asia. The U.S. will not be immune to its ill effects.

Using our model of the global economy, we estimate that, in the most likely scenario for the spread of the virus, the disruption caused by the coronavirus will cut more than 2 percentage points from Chinese real GDP growth at an annualized rate in the first quarter of this year and 0.8 percentage point from growth for all of 2020 (although this may not show up in official GDP statistics from China). U.S. real GDP growth will be reduced by 0.45 percentage point at an annualized rate in the first quarter and 0.15 percentage point for the year. Of course, there are many other scenarios, each one seeming darker than the last.

Sizing the pandemic

The coronavirus, also known as 2019-nCoV, is spreading quickly. The outbreak, which began at the end of last year in Wuhan, China, has infected some 17,000 people as of February 3, according to the Chinese government and authorities in more than 20 other countries. More than 360 people have died from the virus so far, with all but one of these deaths in China.

Given Chinese authorities' poor track record in disclosing the extent of past negative events such as the [SARS pandemic](#), which also originated in China in 2003, and the [Tianjin explosion](#) in 2015, it would not be surprising if coronavirus infections and deaths are meaningfully higher than officially reported. [Credible estimates](#) suggest that the number of infections is already five times as great as reported.

Even if the official estimates are roughly correct, 2019-nCoV is already more widespread than was severe acute respiratory syndrome, or SARS, during its outbreak. SARS sickened almost 9,000 people in 17 countries and killed close to one-tenth of those infected. The Middle East respiratory syndrome, or MERS, pandemic began in the Middle East in summer 2012, infecting almost 2,000 and killing over one-third of those who got sick.

How many people will ultimately be infected and die from 2019-nCoV is difficult to gauge, but it would be prudent to anticipate several hundred thousand will eventually be sick and thousands will die. If SARS is a reasonable guide, the pandemic will likely continue through the first half of this year. Given the response by global authorities to the outbreak, 2019-nCoV should remain largely contained to China, but a broader contagion is a clear downside risk. An upside risk is that the global scientific community quickly succeeds in developing a vaccine for 2019-nCoV, although it is sobering that there is still no vaccine for SARS or MERS.

Chinese economic impact

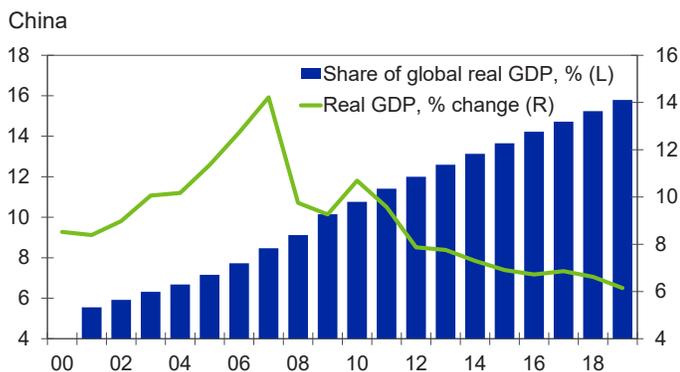
The coronavirus outbreak is severely disrupting the Chinese economy. Large areas of the country are under quarantine (affecting about 60 million people), and much of the rest of the populace has been told not to go to work and to stay in their homes. Travel to and from China from the rest of world has been severely curtailed. Most global airlines have stopped flying to China.

Partially mitigating the economic damage has been the Lunar New Year celebration, which officially runs through early February. Most Chinese travel to visit family for the festivities, which has exacerbated the outbreak, but it also means most people are not working during this holiday. The impact on the economy will now quickly mount, since people will not be returning to work any time soon.

The SARS experience provides a useful benchmark for assessing the economic fallout from 2019-nCoV. [Research published by the Brookings Institution](#) using another model of the Asian economy estimated that SARS cost the Chinese economy close to 1 percentage point in real GDP in 2003. [Hong Kong's economy](#) was hit even harder. The impact on the U.S. and the rest of the global economy was not quite 0.1 percentage point of real GDP (see Table). The Brookings study accounted for the direct, short-term impacts on tourism, travel and retailing as well as the longer-term impacts on risk premiums—global investors require a higher risk premium for investing in China given the higher possibility of a future outbreak—human capital, and other demographic forces.

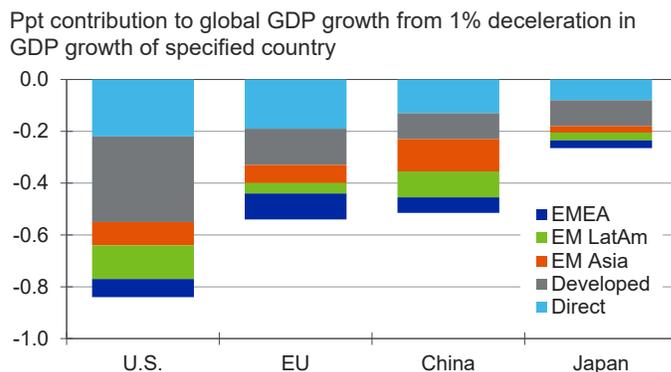
Although the coronavirus pandemic is already more widespread than SARS, we estimate the cost to the Chinese economy will be about the same. Key to this relative optimism are the substantially greater financial resources of the Chinese government today. China will use these resources to provide whatever fiscal and monetary stimu-

Chart 1: China's Role in the Global Economy



Sources: National Bureau of Statistics, Moody's Analytics

Chart 2: Hits to Big Economies Bruise World



Source: Moody's Analytics

lus is needed to support the economy. The Chinese central bank will provide additional liquidity into financial markets beginning February 3, and the China Banking and Insurance Regulatory Commission issued a notice on February 2 requesting that banks not cut off loans, and that they appropriately lower lending rates to retailers, restaurants, hotels, and logistics and tourism companies heavily affected by the coronavirus epidemic.

When SARS hit almost 20 years ago, China was still very much an emerging economy with limited resources. The economic fallout on China from 2019-nCoV would have been even more limited, except that the Chinese economy has been having a tough go of it

for more than a year due to the trade war with the U.S. and efforts to deleverage.

Global economic impact

The global economic impact of 2019-nCoV is expected to be substantially more significant than that of SARS, primarily because China has gone from being a bit player in the global economy in the early 2000s to an economic powerhouse today. Back then, China accounted for just over 4% of global GDP, compared with 16% today (see Chart 1). China has become an integral part of the global manufacturing supply chain, accounting for about one-fifth of global manufacturing output.

China, by 0.4 percentage point (see Chart 2). The coronavirus is thus expected to reduce global real GDP, excluding China, by 0.8 percentage point in the first quarter of this year and 0.3 percentage point for all of 2020. Before the pandemic, we were expecting the global economy to expand this year near its potential growth rate of 2.8%. But it is now expected to grow by 2.5%. This is below the economy's potential and means that unemployment will begin to rise later in the year. Recession risks, which had receded after the truce in the U.S.-China trade war late last year, could become uncomfortably high again.

Table 1: SARS Impact on Real GDP

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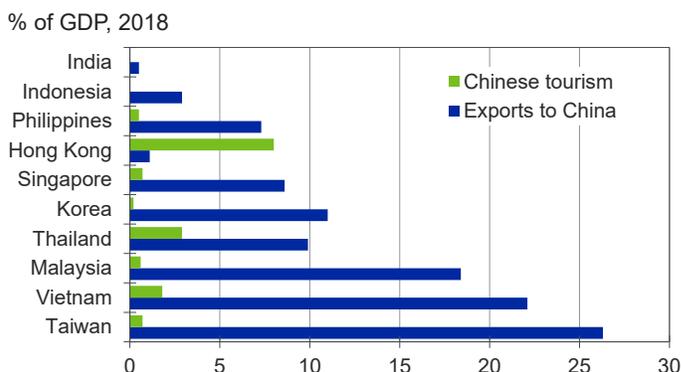
	1-yr impact	10-yr impact
Hong Kong	-2.63	-3.21
China	-1.05	-2.34
Taiwan	-0.49	-0.53
Singapore	-0.47	-0.51
Malaysia	-0.15	-0.17
Thailand	-0.15	-0.15
Philippines	-0.10	-0.11
Korea	-0.10	-0.08
New Zealand	-0.08	-0.08
Indonesia	-0.08	-0.07
U.S.	-0.07	-0.07
Japan	-0.07	-0.06
Australia	-0.07	-0.06
OPEC	-0.07	-0.09
Eastern Europe	-0.06	-0.05
India	-0.04	-0.04

Sources: Lee & McKibbin, Brookings Institution

Based on simulations of our global model, every 1 percentage point of sustained reduction in Chinese real GDP reduces global GDP, excluding

The rest of Asia suffers the most from China's struggles with 2019-nCoV. Hong Kong, Thailand, Vietnam, and to a lesser extent Singapore and Malaysia will be hurt most immediately by the falloff in Chinese tourism (see Chart 3). Shuttered Chinese factories will also soon be a problem for

Chart 3: Asian Economies Exposed to Virus



Sources: Government sources, IMF, Moody's Analytics

countries ingrained in China's supply chain, including Taiwan and Vietnam, followed by Malaysia and Korea, particularly if they remain dark for more than a few weeks.

The Latin American economy is also vulnerable to the coronavirus outbreak via the troubled Chinese economy and weakened demand and prices for the agricultural, metals and energy commodities produced throughout the region. Oil prices are already off by more than \$10 per barrel since the beginning of the year to near \$50 per barrel for West Texas Intermediate crude, and copper prices have slumped sharply and threaten to fall through \$2.50 per ounce. At these prices, commodity producers will soon begin to cut back on production and investment. Given the economic damage caused by 2019-nCoV, prospects are poor that prices will recover soon.

U.S. economic impact

The U.S. economy will not be able to avoid the fallout from 2019-nCoV, which is expected to reduce U.S. real GDP by 0.45 percentage point at an annualized rate in the first quarter of this year and 0.15 percentage point in 2020. Real GDP growth is now projected to be 1.7% this year, just below the economy's 2% potential growth rate.

The most immediate and direct link between the U.S. economy and 2019-nCoV is via the falloff in Chinese tourism, which is

considerable at close to 3 million visitors per year, according to the U.S. Travel Association. Chinese tourists also spend about half again as much as the typical international tourist, an estimated \$6,700 per person per trip. During the SARS outbreak in 2003, the number of Chinese tourists traveling to the U.S. declined more than 50% at the peak of the impact, three months after the start of the outbreak. The coronavirus outbreak is sure to result in much bigger declines over a longer period. Assuming that Chinese business travel and tourism is off by closer to 75% at the peak this spring with a full recovery by year's end, the hit to U.S. real GDP via weaker service exports (tourism is considered a service export) will reduce first-quarter real GDP by about 0.2 percentage point and 2020 real GDP by 5 basis points.

U.S. exports to China, which account for about 1% of U.S. GDP, will suffer given weaker Chinese demand and the likelihood that the U.S. dollar will appreciate back above 7 yuan to the dollar. China is supposed to ramp up its imports of U.S. products as part of the Phase One trade deal signed by the two countries in January. How much the Chinese will actually purchase from the U.S. is an open question; given 2019-nCoV, it is even more questionable. While Chinese demand for U.S. medical and agricultural products may receive a boost from the virus, demand for other products will suffer. We expect low-

er U.S. exports to China to reduce U.S. real GDP by another 0.15 percentage point in the first quarter and 5 basis points for 2020.

The uncertainty created by the virus and exacerbated by the opaqueness of Chinese authorities will cause risk premiums in stock and bond markets to increase and already-cautious business executives to continue to sit on new investment and expansion plans. Financial markets are especially vulnerable given their currently high valuations and are already discounting the rising likelihood that the virus will do significant economic damage. Stock prices in the U.S. are expected to be as much as 5% lower at the peak impact in the next few weeks before fully recovering by year's end. The impact of all this will reduce real GDP by 0.1 percentage point in the first quarter and 5 basis points for 2020.

Conclusion

The 2019-nCoV pandemic has suddenly become a serious threat to the Chinese, global and U.S. economies. How serious is difficult to gauge given large unknowns as to how widespread and virulent the virus will be. However, there are no good scenarios, particularly given the fragility of the global economy even before the virus was on the scene, and the already-long list of significant geopolitical threats. We will continue to update our economic assessment of the virus as its trajectory takes shape.

About the Author

Mark Zandi is chief economist of Moody's Analytics, where he directs economic research. Moody's Analytics, a subsidiary of Moody's Corp., is a leading provider of economic research, data and analytical tools. Dr. Zandi is a cofounder of Economy.com, which Moody's purchased in 2005.

Dr. Zandi's broad research interests encompass macroeconomics, financial markets and public policy. His recent research has focused on mortgage finance reform and the determinants of mortgage foreclosure and personal bankruptcy. He has analyzed the economic impact of various tax and government spending policies and assessed the appropriate monetary policy response to bubbles in asset markets.

A trusted adviser to policymakers and an influential source of economic analysis for businesses, journalists and the public, Dr. Zandi frequently testifies before Congress on topics including the economic outlook, the nation's daunting fiscal challenges, the merits of fiscal stimulus, financial regulatory reform, and foreclosure mitigation.

Dr. Zandi conducts regular briefings on the economy for corporate boards, trade associations and policymakers at all levels. He is on the board of directors of MGIC, the nation's largest private mortgage insurance company, and The Reinvestment Fund, a large CDFI that makes investments in disadvantaged neighborhoods. He is often quoted in national and global publications and interviewed by major news media outlets, and is a frequent guest on CNBC, NPR, Meet the Press, CNN, and various other national networks and news programs.

Dr. Zandi is the author of *Paying the Price: Ending the Great Recession and Beginning a New American Century*, which provides an assessment of the monetary and fiscal policy response to the Great Recession. His other book, *Financial Shock: A 360° Look at the Subprime Mortgage Implosion, and How to Avoid the Next Financial Crisis*, is described by the New York Times as the "clearest guide" to the financial crisis.

Dr. Zandi earned his BS from the Wharton School at the University of Pennsylvania and his PhD at the University of Pennsylvania. He lives with his wife and three children in the suburbs of Philadelphia.

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